



BACK FROM APOLLO 12—George Lockhart, far right, Y-12 Project Director for NASA activities, briefs ORAU teacher-demonstrators Phillip A. Lamm (left) and Ronald P. Nutt on Apollo 12 "moon box."

Through Sunday, April 26

'Moon Rock', Equipment Featured at Museum

The end section of one of the largest moon rocks returned by the Apollo 12 flight last November is on public display at the American Museum of Atomic Energy-Oak Ridge Hall of Science, through Sunday, April 26.

Crystals Are Larger

The rounded, oval-shaped specimen, which weighs six-tenths of a pound and is approximately three and one-half inches on its longest side, is part of a rock that originally weighed more than three pounds.

Also on display at the Museum is Apollo flight equipment designed and fabricated at the Oak Ridge Y-12 Plant and Oak Ridge

National Laboratory. This includes the "rock box" in which Apollo 12 samples were returned to the Lunar Receiving Laboratory in Houston and production models of the contingency sampler, gas analysis container, and sample bag containers used in the lunar-landing missions.

20,000 Visited

The moon rock was collected during the first Apollo 12 moonwalk, northwest of the Lunar Module and north of the head crater. It is classified as an "olivine dolerite," a rock with the basic composition of a lunar basalt, but with larger crystals as part of its structure.

The moon-rock display is the second at the Museum. Last November, when lunar specimens from the first manned landing by Apollo 11 were shown, nearly 20,000 persons visited over a 13-day period.

The Museum, operated for the U. S. Atomic Energy Commission by Oak Ridge Associated Universities, is open seven days a week, from 9 a.m. to 5 p.m., Monday through Saturday, and from 12:30 to 6:30 p.m. on Sunday. There is no charge for admission and regular lecture-demonstration programs are conducted by the Museum staff.

NUCLEAR DIVISION NEWS

UNION CARBIDE

A Newspaper for Employees of the Nuclear Division, Union Carbide Corporation

Vol. 1 — No. 6

OAK RIDGE, TENNESSEE

Thursday, April 23, 1970

230 Trainees Begin in April Cycle for TAT

Group Includes New Appalachian Recruits

Some 230 disadvantaged young men have begun specialized training in industrial skills and technology in the April cycle of Training and Technology's Worker-Training Program.

The group includes about 40 who were sponsored by the Appalachian Regional Commission and recruited from the States of Virginia, West Virginia, and Kentucky. This was the first time the Appalachian group from these states had participated.

Supported by Many

Others in the April cycle include 75 sponsored by the U. S. Atomic Energy Commission, about 70 recruited by the Chattanooga Concentrated Employment Program, 23 recruited by the Tennessee Rural Concentrated Employment Program, and 20 from the Chicago area selected by the AEC's Argonne National Laboratory and the National Accelerator Laboratory.

The current cycle will feature job instruction and related training in electronics, machining, mechanical operations and drafting, welding, and physical testing. As in previous training courses, the training will be conducted at the Nuclear Division's Y-12 Plant by personnel of Union Carbide Corporation. Direct shop instruction will be supplemented with individual counseling and extensive classroom and trade-related industrial mathematics, communications, and science.

Training Period Varies

The training period will vary for each member of the group, but will generally run from 13 to 26 weeks with the average period expected to be about 30 weeks.

TAT's worker-training program, jointly administered by Oak Ridge Universities and the Nuclear Division, is being supported through an interagency agreement between the AEC and the U. S. Department of Labor under the Manpower Training and Development Act. Since TAT began in 1966, more than 900 graduates of its worker-training program have been placed in jobs.



Arendt Heads Cancer Drive

J. W. Arendt, a department superintendent at the Oak Ridge Gaseous Diffusion Plant, has been named chairman of the 1970 April Crusade for the Anderson County American Cancer Society Unit.

In addition to supporting basic cancer research, the ACS provides services and educational materials designed to keep the public and the medical profession up to date on the latest in cancer research and treatment.

This year's Anderson County goal is \$12,000. Many Carbide employees will be among volunteers working in Anderson and other counties in the residential educational and fund-raising Crusade on April 22, 23, and 29.

Other county goals are: Knox, \$61,000; Roane, \$42,000; Blount, \$12,508; Loudon, \$4,256; Morgan, \$2,289; Scott, \$1,695; Sevier, \$4,282; Union, \$1,125; and Campbell, \$3,889.

Arendt, who is in charge of the Laboratory Division's Physical Measurements, Inspection, and Nuclear Technology Department, is a past president of the Anderson County ACS unit and is currently serving as a member of the State of Tennessee ACS Board of Directors.

People will be asked to "fight cancer with a checkup and a check," according to Arendt. This slogan is a familiar one, but the 1970 April Crusade will have an additional emphasis — specific information on cancer safeguards such as the Pap test for early detection of uterine cancer.

Blood Program D-Day Is Friday

Tomorrow—Friday, April 24—marks the first visit of the American Red Cross Bloodmobile under the new program inaugurated this month primarily for residents of Oak Ridge and Anderson County.

Volunteers willing to give a pint of blood on D-Day (donor day) are urged to call special number 483-0211 today so that arrangements can be made. Each donor will be scheduled during his nonworking hours.

Daylight Saving Time To Move Clocks Ahead

Nuclear Division employees will lose an hour this weekend. Daylight Savings Time becomes effective at 2 a.m. Sunday morning, April 26. Clocks will all be moved forward to 3 a.m. at that time.

Employees working the midnight shift report to work on Eastern Standard Time, leave on Eastern Daylight Saving Time.

The hour lost to limbo will be regained next fall.

April's 'Operation Clean Water' Gets Growing Support

Come on in . . . if we keep it up, the water's going to be fine.

Volunteers in Operation Clean Water at Melton Hill Lake have picked up more than 300 plastic bags full of trash over several weekends of work. The group, organized to help preserve the natural beauty of the area lakes, is using bags which were donated by the Nuclear Division.

The bulk of the actual work so far has been done by about 20 volunteers and 25 Boy Scouts from Troop 228 (see photo on page 5) under Scout leader Jim Simpson. But equally important, according to R. E. (Chuck) Brockwell, one of the volunteers, is the fact that "the idea is beginning to catch on" with others using the lake.

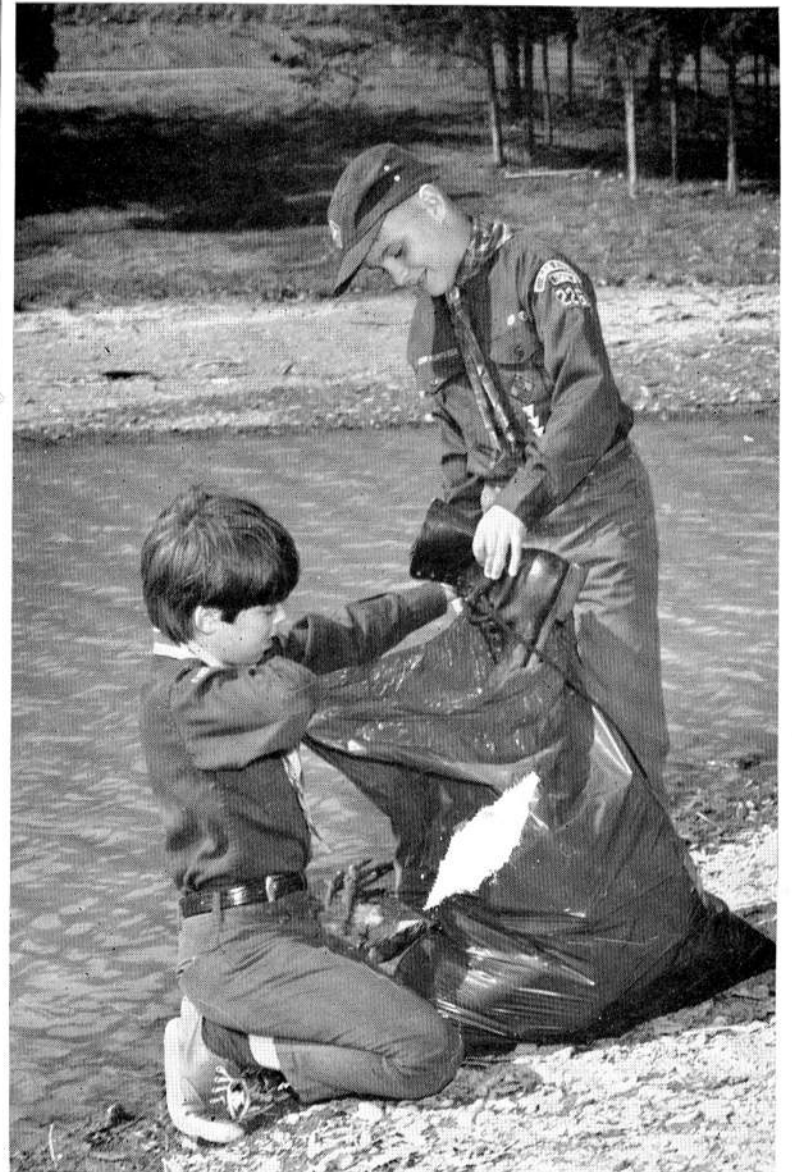
Pledge cards have been signed by dozens of boaters agreeing to take time for cleanup activities during their recreation. "We've begun to see boaters bring back three and four bags of trash left behind by someone else," Brockwell reports.

Volunteer donations are essential to replace the blood actually used under the program, which automatically covers all Oak Ridgers (including those living in Roane County) and residents of Anderson County. Residents of other counties may qualify themselves and their families for six months by giving a pint of blood.

Under the new program, eligible persons needing blood can receive it whenever they need it and wherever they need it. Red

Cross volunteers and staff handle necessary arrangements. In effect, the cost for a pint of blood has been reduced from about \$60 to about \$30.

Program organizers emphasize that blood donations are the key to continued operation of the project. The Bloodmobile will be at the National Guard Armory off Oak Ridge Turnpike April 24. Trained nurses and staff will be available to process donors, with an average time of about 45 minutes per donor.



HELPING OUT—Cub Scouts Wayne Curtiss, left, and Ben Fulmer help out in cleanup activities. Wayne is the son of Mr. and Mrs. Roy Curtiss, and Ben of Mr. and Mrs. Clyde B. Fulmer. Curtiss and Fulmer are with the Oak Ridge National Laboratory.

Down on the Farm

UT-AEC Agricultural Research Lab Conducts Many Vital Experiments

By J. A. Young

Have you ever wondered what goes on at the farm near the Clark Center Recreational Park? The flat, fertile-looking pasture which abounds in cattle, burros and sheep contentedly grazing is the UT-AEC Agricultural Research Laboratory. Just what is the function of the lab?

A recent visit with Dr. Nathan Hall, director of the ARL on Bethel Valley Road, provided some of the answers in an entertaining informative session and a tour of the lab's facilities. (Most folks call it the "UT Farm," actually it's not a farm, rather a collection of community farms, set on the site of what was once an elementary school in this area.)

The Agricultural Research Laboratory had its beginning in the sands of New Mexico almost 25 years ago when scientists tested a new weapon at Alamogordo.

Radioactive Dust

The cloud of radioactive dust that settled over the area, fell on a herd of Hereford cattle grazing in the area. Soon the cattle developed sores along their backs where the dust had settled. Manhattan Project researchers were given the task of finding out why . . . or as the original objective went "to investigate the effects of the 1945 bomb irradiation upon the general health, growth, breeding efficiency, and relative fertility of the exposed Hereford cattle and their offspring."

"Alamogordo No. 52" was the last survivor of the herd. Before her natural demise she produced 16 calves for the research staff at the lab. Genetic damage due to radiation was merely one of her many research contributions.

The scope of the laboratory has grown since it began in 1948.

"We hope we never have to use some of the results of our re-

search," Dr. Hall stated, referring to the tasks assigned them by Civil Defense. What does radiation do to living things? How does it change the life cycle of a plant? What is the lasting effect of radiation on an animal? Is his life shortened? What amount of dosage is lethal to either plant or animal? These are a few of the questions posed the researchers.

Under contract, the laboratory is operated by The University of Tennessee for the AEC. Research men and women are concerned with the effects of radioactive materials in the food cycle and on the effects of external irradiation on animals, plants and seeds. Interesting mutations have been produced in the plant kingdom, and the staff is particularly proud of a chrysanthemum produced by genetic changes brought on by irradiation.

A five-year-old burro is allowed to live out his normal life span in peace to see what effects irradiation will have on him in his old-age. Will his life be shortened? Will there be marked geriatric changes in his structure as compared to a burro that has not been irradiated? The animal was exposed to a radiation source and still bears markings of the crate he was in at the time. His right hind leg is smaller showing muscle damage sustained in the exposure.

Another interesting experiment is the tread-mill for fatigue studies with paired ponies. Five pairs of ponies perform tests daily on the track. One pony in each pair has been irradiated. Sensors of all the life functions are attached to the animals and careful computations are made. The data will show, it is hoped, whether or not endurance changes are brought about by radiation exposure.

What does irradiation do to a



DAMAGE TO THE METABOLISM—Dr. Nathan Hall is involved in studies of irradiation to plants at the UT-AEC Agricultural Research Laboratory. In the lower photo he demonstrates how somatic damage can 'wash' the red away from the coleus plant, and the top photo illustrates the mutation of the carnation . . . showing both red and white coloring on the same blossom.

plant? One of the current studies is on the coleus, an herb-like plant. Dr. Hall has learned that through irradiation he may damage the enzyme system of the coleus . . . and remove all the red pigmentation from the leaves. Controlled radiation shows various degrees of red pigment. Some of the coleus plants are completely 'bleached' of any red coloring.

Controlled Studies

Studies on corn, wheat and other grains are being conducted in the controlled atmosphere of the lab's hot houses. Exacting temperatures and humidity are required for the carefully-controlled experimentations.

The researchers are also doing interesting work on the carnation. Mutations show variations of red and white coloring, many on the same plant.

One of the unique features of the laboratory is that all animal and plant caretakers are in overall operations rather than being assigned to specific research areas. They believe this system assures the desired flexibility and permits the best care of the animals and plants with a minimum number of people. (They are staffed with about 150 people, 25 of whom are scientists. Another typical inventory might reveal about 500 cattle, 300 burros and ponies, 250 sheep, 250 swine plus variable numbers of chickens, mice, rabbits, etc.)

In addition to the staff, graduate students come and go as well as visiting scientists interested in the application of nuclear energy in the field of agriculture.

The laboratory and its improved lands are valued at approximately \$2 million. The site is on about 5,000 acres along Melton Hill Lake in the old Scarboro area.

While the laboratory has no specific commitment in the area of training and education, its intimate connection with the College of Agriculture at UT makes it

natural that this be included in its program. Research is coordinated with the needs of the University as well as those of the Commission.

The Laboratory also maintains a close relationship with the Oak Ridge Associated Universities. Research participants working under this program are supported finally by ORAU.

Over the past years the lab has had an average of from 8 to 14 graduate students and visiting research participants at any given time. Thesis and dissertation topics have covered a wide range of subjects, but most have dealt with some phase of radiation research with large animals and plants.

A tour of the farm and a conversation with Dr. Hall assure you readily that they do more over there than "feed the chickens and milk the cows."



DWARFED CORN—Gradations in irradiation are clearly visible in the corn above. At the left is a row or two of healthy corn with the irradiation increasing as we move right. The seeds can be irradiated in various degrees even to the point of killing the seed and thus preventing reproduction by germination.



PARTIAL SHIELDING—This burro's head and neck were shielded during a radiation exposure while the end of its body was unshielded. The burro is part of a study of the central nervous system derangement caused by external irradiation. The crating's marks are clearly visible on the animal's side.

NEWS

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NUCLEAR DIVISION

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Bringing 'Em Back Alive at Battelle

Any hunter can tell you what a deer tag is; the first thing he's supposed to do after killing a deer is to put a tag on the carcass or face the wrath of the game warden.

At the AEC's Hanford Project at Richland, Washington, they do it the hard way. Since deer hunting is prohibited, scientists tag them while they're alive.

Patterns Observed

Twenty-four mule deer fawns have been fitted with permanent, harmless, metallic ear tags by Battelle Northwest ecologists as the first step in a long-term study of the Project's deer population. A helicopter was used to locate the deer and aid in their capture.

The studies, sponsored by the Atomic Energy Commission as an integral part of its terrestrial animal ecology program, are aimed primarily at establishing standards by which the life span, dispersion, and migration habits of deer at Hanford can be accurately charted.

Tagging Identifies

Tom O'Farrell, who heads up the terrestrial program, said the extent of tooth wear is a prime means of determining the age of deer, but it is not accurate. While many deer skeletons have been found on the Project in recent years, scientists are unable to accurately predict at what age the animals died because no local standard for doing so exists.

"By tagging the fawns, we permanently identify them as known-age animals," O'Farrell explains. "As such, they will ultimately form the basis of an aging standard."

THE CARBIDE COURIER

Thursday, April 23, 1970

Page 3



DISPLAYS PATENT AWARD LETTER—Marshall H. Hickey holds his patent award transmittal that he received from F. S. Patton, Engineering Division Superintendent. From left are Burl Zimmerman and R. I. Deadrick, who witnessed the presentation; Hickey, and Patton.



PATENT AWARD RECIPIENT—Vilmer H. Kiplinger holds his patent award transmittal letter that he received from H. E. Trammell (left). Department head, R. L. Higgins, accompanied Kiplinger to the presentation.

Hickey, Kiplinger Receive Patent Application Awards

Marshall H. Hickey and Vilmer H. Kiplinger were presented patent application awards recently. Mrs. Frances E. Reed, administratrix for the estate of the late Roy E. Reed, Jr., was also presented an award, recognizing Mr. Reed's contribution as a co-inventor on this patent application.

The patent application is entitled "Process and Apparatus for Forming Tubes with Spiral Corrugations." It resulted from desalination research here in the plant, and the patent rights have been reassigned by the AEC to the Office of Saline Water, Department of the Interior.

Marshall H. Hickey

Hickey is a draftsman in Machine Design, Engineering Division. He has worked here approximately four years, coming to Carbide from the Tysaman Machine Company. He was born in the Karns Community, and attended U-T and East Tennessee State.

Marshall is married to the former Virginia Helton of Knoxville. They reside on Route 20, Greenbrook. His outside interests include fishing and he is a board member of Ridge Runners 4-Wheel Drive Club.

Vilmer H. Kiplinger

Kiplinger is employed in instrument and mechanical development work in the Compressor and Stage Equipment Development Department, Gaseous Diffusion Development Division. This is the third patent award that he has received. He has been in the

atomic energy field for 25 years, first in the Army Corps of Engineers SED. He joined Carbide in January, 1946, following his discharge from the Army.

A native of Muncie, Indiana, he attended Purdue, M.I.T., and U-T and is a Registered Professional Engineer in Tennessee. Mrs. Kiplinger, the former Freedah Craw, is also from Muncie and they have two sons — Dale and Alan. Dale graduated from U-T and is working in Burlington, Indiana, and Alan is a Junior at U-T. The Kiplingers live in Concord.

ORGDP Volunteers Serve Community

K-25ers serve their communities in numerous ways. We have asked a number of organizations to give us the names of our people who volunteer their time, effort, and money to make their communities a better place in which to live.

Many In Scout Work

Many employees are involved in various Boy Scout organizations. We have received lists of those serving in the Pellissippi District and those active in Roane County scouting. We want to give credit to these K-25 men for helping this outstanding organization in their respective communities. **This is a partial list — no doubt there are a number more whose names should be included.**

PELLISSIPPI DISTRICT —

M. J. Bartkus, T. G. Burke, R. H. Burns, Don Cagle, John Cooke, A. L. Cupp, Dudley Drake, R. H. Dyer, R. A. Ebel, Glen Harber, Alfred Krusen, John Lauderdale, J. B. Mankin, John McLaughlin, John Oakberg, W. S. Pappas, John Reeve, R. B. Schappel, Macy Summers, Edward VonHalle, James Walsh, Robert West, and Jack Zeigler.

ROANE COUNTY —

John Barber, Frank Bensey, Jack B. Judd, Marcus Martin, W. D. McCluen, Oscar Mitts, Clifford Nunley, Hoyt Robinette, D. A. Robinson, Mike Rogers, DeForest Smith, Joe Stanley, Ted Wagner, and Leon Yount.

The Boy Scouts are one of the many worthwhile agencies supported by our contributions to the United Fund.

FISHING RODEO

We are now in the best part of the year for fishing. When you catch that big one, don't forget to enter him in the annual K-25 Fishing Rodeo. Several prizes went unclaimed in last year's rodeo because of lack of entries — send 'em in, you might win. Entry blanks may be obtained from the Recreation Office in the front of the Cafeteria Building.

Four Veterans With 25 Years Of Service Retire This Month



Schiffman

Stephens

Dodson

Mayer

Four employees with more than 25 years' service with Union Carbide will retire this month.

S. D. Schiffman

S. D. Schiffman, senior technician in Process Systems Development, Gaseous Diffusion Development Division, has elected to take early retirement. Schiffman has been employed here since October 29, 1944, joining Carbide after working at the Redstone Arsenal Proving Grounds.

Born in Jacksonville, Fla., Schiffman attended public schools in Huntsville, Ala., and attended the University of Akron in Akron, Ohio. He is married to the former Carolyn Gerson and they have a daughter, Jean (Mrs. Harry F. McClain), attending The University of Tennessee.

The Schiffmans have planned an extensive European trip starting next month. They will visit England, France, Holland, Austria, Italy and Switzerland. They will go over on the SS France and return on the New Queen Elizabeth (QE2). Schiffman is active in Lions Club work with the blind and handicapped. He plans to work in Gatlinburg during the summer seasons.

"It has been a very happy 25½ years spent with Carbide," he says, "and I know I am going to miss the many people I have worked for and with."

I. D. Stephens

Also taking early retirement is I. D. Stephens, maintenance foreman in the Cascade Maintenance Department, Fabrication and Maintenance Division.

Stephens has been employed here since September 13, 1944. He came from having been employed for 13 years by Southern Chemical Cotton Company and he worked for two years for the Ford Motor Company.

He was born in Haleyville, Ala., and attended public schools in Lawrence County, Ala. He is married to the former Treva Shirley and they have three children — Doris Hunt, a housewife in Atlanta, Ga., Don, manager of the Firestone Store in Oak Ridge, and Preston is with the Ford Motor Company in Atlanta.

Golfing, fishing, hunting, traveling, yard work, and gardening will occupy Stephens' time following retirement. He told of a fishing trip with E. S. Robinson of the Barrier Plant. They were flown to a remote lake in Ontario, Canada, and were left out of touch with the world for four days. They caught so many fish, mostly walleye, that they hoped they would quit biting.

Stephens says, "I have enjoyed my years with Carbide and have met and worked with a lot of wonderful people. I will miss the close associations, but hope to continue to see and enjoy their acquaintance."

The Stephens live on Walnut Lane, Valley View Heights, Clinton.

W. B. Dodson

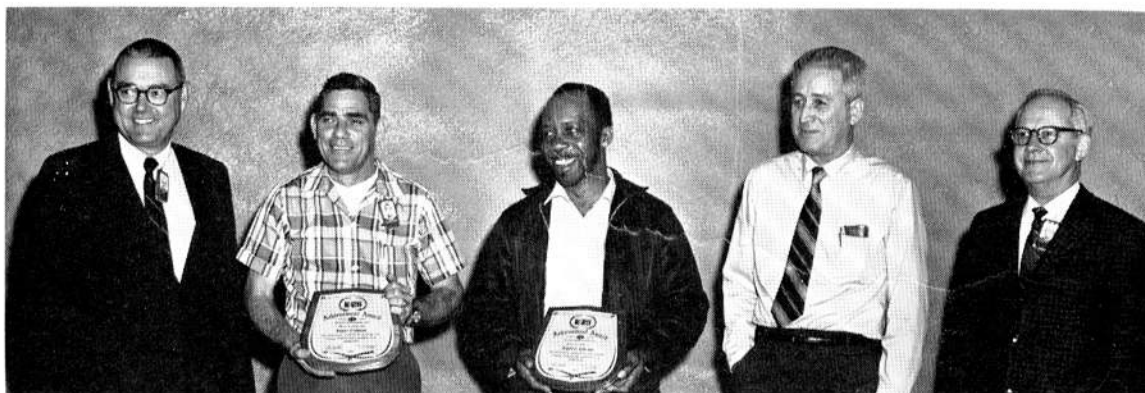
W. B. Dodson, maintenance foreman in the Instrument Fabrication Department, Fabrication and Maintenance Division, will retire this month after more than 25 years of service.

He has been a Carbidier since June of 1944. Earlier he was employed in Oak Ridge by Ford, Bacon, and Davis, and by Stone and Webster. Before Oak Ridge, he had worked in Detroit for the Briggs Manufacturing Company.

Dodson was born in Warren County, Tenn., and attended public schools in South Pittsburg, Tenn. He is married to the former Wileta Williams and they have a daughter, Patsy Schroeder, residing in Asheville, N. C. The Dodsons live on Route 3, Crestwood Subdivision, in Kingston.

E. K. Mayer

E. K. Mayer, maintenance foreman in the Instrument Fabrication Shop, Fabrication and Maintenance Division, will retire this month after more than 25 years of service.



GRADUATION AT ORGDP—R. V. Adkins and J. C. Eskridge were recently presented plaques in recognition of their having satisfactorily completed the Operator Training Course being conducted by the ORGDP Operations Division. The course covers 15 months of classroom and on-the-job training in the skills required to operate the many different kinds of equipment which make up the gaseous diffusion uranium isotope separating process. From left are, making the presentation, R. H. Dyer, Cascade Operations Department Superintendent; Adkins; Eskridge; R. G. Ingram, K-32 "D" Shift Supervisor; and L. J. Davis, Training Coordinator. Adkins lives in Caryville, and Eskridge is a resident of Harriman.

SAFETY SCOREBOARD

OUR PLANT
Has Operated
3,349,000 Safe Hours
Through April 16

Since last disabling injury on August 19

These Employees Reach 25 Years Service This Month



Bowling News

Pay Offs On Top

Helen Hobson and Oleta Carden shared Bowler-of-the-Week honors in the April 17 session of the Women's League. Helen had a single game score of 202-228 and Oleta had the best series scores, 515-611.

Betty Kemper had all the honors in the March 31 kegling with a 219-260 single game and a 540-663 series.

Standings

Pay Offs	36	Bowlettes	26
Pin Ups	35	Hot Shots	24
Uptowners	33	Spotters	21
Wood Bees	32	Purchaseettes	17

Double X Ahead

By Mal Strickland

March 31 — Martin Ginsburg fired a fine 604 scratch (667 handicap series, including a 222 scratch (243 handicap) game, to take honors in all four categories in this session of bowling.

Paul Clabough, with a 574 scratch (643 handicap) series, ran second this week while Bart Simcox also had a good 571 scratch series.

Lee Owens shot a good 219 scratch game (241 handicap) to remain in contention for high game.

April 7 — League scoring was on the low side again this week as no individual could break above the 556 scratch series level and only a couple of good 200 or better games were shot.

Charles Hale, with a 216 scratch game and a 556 scratch series, was high in both these categories. Mal Strickland, with a 544 scratch series, was next in line. No one else



'Young' Veteran

GOLF TOURNAMENT

Starting times for the first K-25 golf tournament of the current season may be obtained from the Recreation Office in the front of the Cafeteria Building, starting at 7:45 a.m., next Monday, April 27.

in the league rolled a series above 540 scratch.

George Stubbs, with a 237 handicap (212 scratch) game, and Ray Fraser, with a handicap game of 237 (201 scratch) tied for honors in the handicap game category.

Richard McCulloch, with a 621 handicap series (525 scratch), won the honors in the handicap series category. Both Hale and Fraser had a 621 handicap series.

Standings

Double X	35	Full House	20
Possibles	33	Late Comers	20
Atoms	27	City Slickers	20
All Stars	24	AECOP	17

Turner Has 25 Years in at 43

Guy Turner was only a little over 18 years old when he was hired here in K-25 on January 11, 1945 — his birthdate is September 30, 1926. This means that Turner received recognition as a 25-year Carbide employee at the ripe young age of 43.

Turner of Cascade Operations, Operations Division, is a native of and attended public schools in Hays, Virginia. In his last year in high school, Guy delivered a mail route in Southwest Virginia on horseback each day before hiking four miles to school. He was on military leave from the plant and served in the U. S. Army for about 14 months starting in May, 1946, returning here in July '47.

Mrs. Turner is the former Louise Sapp from Sparta, Tennessee. The Turners reside on Route 2, Powell, and they have four children: Wendell L., 19; Jennifer, 16; Carolyn, 10, and Melinda, 6. Turner's outside interests include gardening, fishing, camping, and church work at the Claxton Church of Christ.

Quotes From Notes From Our Retirees

"I want most of all to thank Union Carbide for making it possible for me to retire early.

"It has been one year since I have retired from Carbide and I sure have enjoyed it very much. Most of all I have enjoyed not having to get up early and going to work but I sure have missed being with my fellow workers and would like to see them all.

"I still live on 58 highway 7 miles south of Kingston and would throw out the red carpet for anyone who would come by and see me."

W. C. Rayder
Kingston, Tenn.

10 Years' Service

W. D. Goode, Jr.	4-04-60
J. Hartman	4-04-60
D. T. Melhorn	4-27-60
J. K. Upchurch	4-27-60
R. K. Campbell	4-27-60
E. F. Pugh	4-27-60
G. D. Manis	4-28-60



Little Miss Oak Ridge

Lab Notes

Bill Pappas (Chemical Analysis Department) and his wife Betty are the proud parents of Deborah (Debbie) Pappas, 11, the winner of the "Our Little Miss Oak Ridge" pageant sponsored by the Oak Ridge Pilot Club. Debbie is a student in the fifth grade at Cedar Hill, a Girl Scout, and enjoys singing and gymnastics. Her talent for the current contest was a song and dance routine. Blonde, brown-eyed Debbie was first runner-up in the same contest last year. From here, Debbie will go on to compete at state level in Memphis later in the summer.

Debbie is not the only contest winner in the family of six girls and one boy. Her sister, Amy, six, was second runner-up in this year's "Little Miss La Petite" pageant and her eight-year-old sister, Jeanne Elizabeth, was a first runner-up in the same contest two years ago.

Mr. and Mrs. William S. Pappas and their family are at home at 114 Venus Road, Oak Ridge.

15 Years' Service

M. Robbins	4-14-55
R. G. McMillan	4-18-55

Engineering

By F. Dodge

Alan Zimmerman, FTG3 USNR, visited his parents — Mr. and Mrs. Burl Zimmerman — over the Easter holiday enroute from Charleston Naval Shipyard to report to the commanding officer, Fleet Training Center, San Diego, Calif., for temporary duty under instruction in pre-commissioning training.



After training at the Fleet Training Center, Zimmerman will report to the Commandant, Bremerton Naval Shipyard, Puget Sound, Wash., for duty in commissioning, fitting out, and shake down of the USS Coronado, LPD 11. Then he will be assigned on sea duty aboard the Coronado as Fire Control Technician.

The Coronado's home port is at Norfolk, Va., and will be assigned duty in North Atlantic waters. Zimmerman's current assignment is for 18 months' duty aboard the Coronado. During 1969 he completed a five-month Fire Control Technician school at Great Lakes Naval Training Station, Illinois.

Zimmerman is following in his father's footsteps, or should we say wake — Burl Zimmerman, Senior Design Consultant in the Engineering Division, is a "Navy man." He saw active duty in World War II and served in the Reserve until retirement from the Navy in 1968.

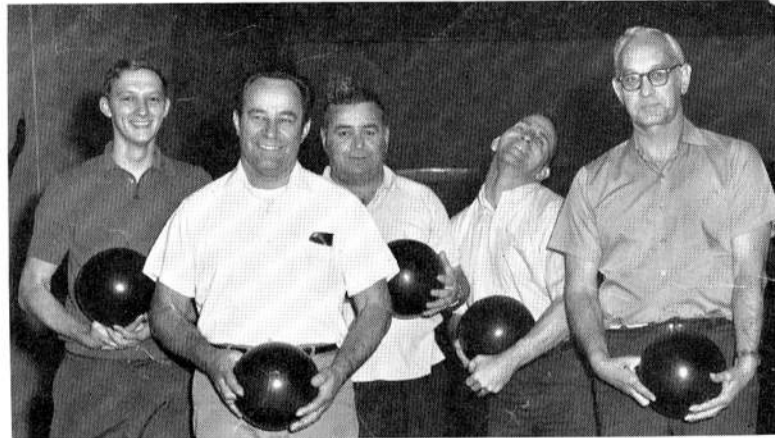
Veterans Retire

(Continued from Page 3)

tenance Division, will retire this month.

Originally employed at the SAM Laboratories in New York, he transferred to K-25 in July, 1944. Before joining Carbide, Mayer had worked for the Atlas Powder Company at Weldon Springs, Mo.

Mayer was born and attended public schools in St. Louis, Mo. Mrs. Mayer is the former Dorothy Anna Forsburg, also from St. Louis. The Mayers have a son, Fred Konrad, residing in Glenburn, N. D. The Mayers live at 106 Armour Road in Kingston.



WEDNESDAY LEAGUE WINNERS—The Pirates won both halves of regular play thus clinching the championship. From left are Troy Beets, Ray Tinehart, Frank Manning, Roy Howell and C. M. Johnson. Other team members not in the picture are Morris Johnson, Roy Dukes, and Stanley Finch.



A CLOSE CALL—Ben Etheredge and John Hurst, left to right, explain to Clarence Johnson, safety department head, how their knowledge of fire saved them in a motel fire recently. They were hospitalized for smoke inhalation but credit much of their success in getting out to things they had learned in Y-12's safety program.

Safety Training Proves Advantageous To Y-12ers Caught in Big Motel Fire

What to do if you awaken on the eighth floor of a motel at three in the morning to find the place afire? Before you give the standard Lucy Brown answer of "Panic," you might remember some of the things stressed in our safety programs in Y-12.

First, find an exit before you retire. Secondly, don't panic. Panic in any situation is your worst enemy. Feel the doors before you open them. If they are hot, leave them closed.

Ben Etheredge, Fabrication Division Engineering, and John S. Hurst, Fabrication Systems Development, were on a recent business trip to Massachusetts. They

occupied adjoining rooms on the eighth floor of the motel.

John was awakened very early in the morning by the smell of smoke. He awakened Ben and the two made it down the halls to the exit. They checked the temperature of the escape route, and it was not hot. Excessive smoke, however, made that route impassable. So the two Y-12ers returned to their room.

They felt their way to the window and opened it and awaited rescue, which came shortly.

After being treated at the hospital for smoke inhalation, the two returned home, none less for the wear, only more convinced than ever that safety training had probably saved their lives.

Technical Papers Given by Y-12ers

Oak Ridge Y-12 Plant technology is being presented at four national meetings this month.

Two Y-12 papers were presented at the American Society of Tool and Manufacturing Engineers meeting in Detroit, April 15. They were "Effective Utilization of Numerically Controlled Turning Machines at the Oak Ridge Y-12 Plant," by P. J. Anderson and P. F. Boyer, and "Evaluation of EDM Surface and Sub-Surface Integrity Using Photomicrographs," by H. P. Prewett and R. L. Williams.

The American Association of Contamination Control meeting in Anaheim, Calif., April 19-22, heard "Contamination Control — Apollo Lunar Sample Return Container and Supporting Hardware," by R. H. Liddle, J. C. Little, J. M. McIntyre and F. D. Mundt.

"Effect of Iron on Hot Cracking of Uranium Metals," authored by Y-12's P. W. Turner and C. D. Lundin of The University of Tennessee is being presented at the American Welding Society meeting in Cleveland, Ohio, April 20-24.

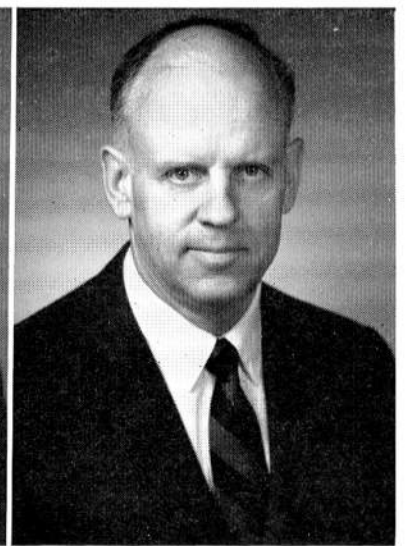
R. A. Tannert is discussing "Management of a Programming Project and Approach," at the Data Processing Management Association meeting in Charleston, S. C., April 23.

SAFETY SCOREBOARD

The Y-12 Plant Has
Operated
105 Days Or
3,760,000 Man-Hours
(Unofficial Estimate)
Through April 14
Without A Disabling Injury
SAFETY AT HOME,
AT WORK, AT PLAY



Glenn W. Ballew



Jack D. Bounds



Clyde H. Drummond, Jr.



James H. Gibson, Jr.

Five New Foremen Promoted April 1

Five more promotions, effective April 1, have been announced in Y-12 . . . four in Alpha Five Processing and one in Buildings, Grounds and Maintenance Shops.

Glenn W. Ballew, Jack D. Bounds, James H. Gibson, Jr., and Joseph D. Vannoy have been named processing foremen; and Clyde H. Drummond, Jr. was made a custodial foreman.

Glenn W. Ballew

Ballew, a native of Copper Hill, Tenn., served in the U. S. Navy from 1944 until 1946. He managed the Community Stores, here in Oak Ridge, until 1951, and then went with the B & S Super Market.

Mrs. Ballew is the former Ruby White. They live at 9109 Lullaby Lane, Oak Ridge, and have two married daughters in Atlanta. He came to Y-12 in 1953.

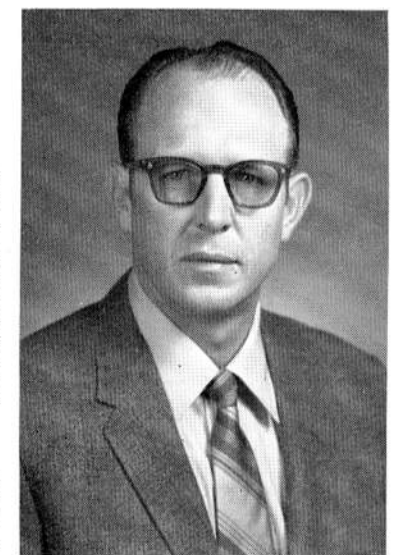
Jack D. Bounds

Jack D. Bounds, born in Knoxville, lives at Route 4, Adams Road, Powell. He also served in the U. S. Navy from 1943 until 1946, and again in the reserve from 1951 until 1953. He taught school at Gibbs High School after receiving a BS degree from The University of Tennessee. He had previously attended Duke University and Mars Hill Junior College.

He married the former Duke Robbins, and the couple has two daughters and three sons.

Clyde H. Drummond, Jr.

Born in New Tazewell, Tenn., Clyde H. Drummond came to work in Y-12 September 16, 1968. He is a graduate of the electronics



Joseph D. Vannoy

school at Central High School, Wartburg.

Drummond worked at New York Cleaners and the Board of Education of Oak Ridge before coming here. He also worked part-time at Western Auto as a salesman.

Mrs. Drummond is the former Shirley Oldaker, and the couple has two daughters, living at 126 Hamilton Circle, Oak Ridge.

James H. Gibson, Jr.

A native of Decatur, Miss., J. H. Gibson served in the U. S. Army from 1953 until 1955. He was a lab trainee in Oak Ridge National Laboratory, and a summer employee there prior to coming here. He worked with Atlantic Research Corporation, and Lockheed Marietta, before coming here July 7, 1969.

He is married to the former Barbara Little, and they have two

(Continued on Page 4)



PROUDLY DISPLAYING THEIR diplomas, four Y-12ers recently completed a successful four-year training course in electronics. Nondestructive Testing's V. C. Jackson, left, looks on, as Lou Fitzgerald, Gerry Davis, and Clay Stewart display their certificates. Ken Bernander, Product Certification Superintendent, is at right.

Bowling News

Has Beens, Markers To Roll For Title in Classic League

The Has Beens, long-time bowling veterans, won the second half of the Classic League and will meet the Markers, first half winners, for the League Championship tonight at 5:45 p.m.

Week-before-last results found the Swingsters taking the only shut-out win by taking four points from the Eightballs. Three-point winners were the Rebels over the Cubs, the Splinters by the Rippers, the Markers over the Bumpers, and the Pinbusters took the Screwballs. Playing even with two points were the Has Beens—All Stars, and Playboys—Tigers.

Rippers Win

Last week's contest found the Rippers outscoring the second-half champs, Has Beens, three points to one. The second-place Bumpers, running close all the way, took three from the Cubs. Two "shut-outs" were recorded—the Splinters four over the All Stars, and the Tigers took a forfeit from the Pinbusters. Other three-point winners found the Swingsters over the Eagles, and the Screwballs over the Playboys. Playing were the Rebels—Markers, and the Eightballs and

Smelters all taking two points each.

Individual honors week before last went to Jack Spears, Rebels, with a single of 246 scratch and 263 handicap. Del Ducoy, Pinbusters, took scratch series with a 601, while Ted Higgins, Playboys, had a 663 handicap. The Screwballs took single game honors with a 957-1071. The Swingsters took the scratch series with 2622, and the Pinbusters copped the handicap with 2986.

Final League Play

Last week's final league play found Wayne Groppe, Rippers, with high scratch single of 226 and Harry Keen, Splinters, with a handicap of 247. Sam Bishop, Eightballs, took series honors with 593-683. The second half winners, Has Beens, took team single honors with 962-1071 while the Splinters took series honors with 2559 scratch and a whopping 3033 handicap.

FINAL LEAGUE STANDINGS

Team	W	L
Has Beens	43½	16½
Bumpers	42	18
Swingsters	35	25
Rebels	34	26
Splinters	34	26
Rippers	33	27
Tigers	32	28
Screwballs	31½	28½
Playboys	30	30
Eightballs	30	30
Markers	29	31
All Stars	27	33
Cubs	21½	38½
Pinbusters	21	39
Smelters	19½	40½
Eagles	17	43

Rollmasters Clip Rounders In C Alley's Final Match

The Rollmasters rolled their way past the Rounders in the final match of C Bowlers last week, topping them by 97 pins.

The big Rounders (J. C. Bryan, Dick Brothers, J. V. Haggard, Pete Gregory and J. E. Morgan) took the first half of league action. They came roaring into the roll-off and took the first game by a big comfortable 100 pins. The 'Masters returned to take game two by 38 pins, reducing the margin considerably. Then the champs really poured it on in game three, winning 988 to 863 for a margin of 125 pins.

J. E. Morgan rolled high series, posting a 596 scratch . . . and his team mate Pete Gregory rolled a high single of 232.

The championship team, the Rollmasters, are Don Stinnett, Frank Winstead, Jack Gamble, George Bailey, and Bill Ladd.

C Bowlers are already organized for 1970-71 play and will bounce back on the alleys around Labor Day.

Woodpeckers Hold Slim Starlite Bowling Lead

The Woodpeckers still hold a rather substantial lead in the Starlite Bowling crowd after last week's action. They swept three from the Wildcats, and took two from the Has Beens the week before.

J. D. Ball, Has Beens, rolled a 226 scratch, 249 game on April 7. Last week, Del Ducoy, Dynapaths, dumped a 242, 260 game down the ways . . . with series count of 610 scratch, 664 handicap!

League standings follow:

Team	W	L
Woodpeckers	57	21
Hi Jackers	54½	23½
Has Beens	45	33
Splinters	39½	38½
Thunderbirds	37	41
Dynapaths	37	41
Wildcats	27	49
Jaguars	13	65

SOFTBALL ENTRIES CLOSING

The Recreation Department already has 12 teams in the Softball League. They announce that filing will come to a halt next Tuesday, April 28. If you want a team in, call 3-7109 before that.



Bell

Hickey



Kimsey

McDougal



Norman

Pelfrey



Stevens

Whitson



Woods

Wyrick

Y-12 Vets Retire Thursday, April 30

A total of 10 Y-12ers will retire next Thursday, April 30: Isaac H. Bell and Harvey C. Whitson, Process Maintenance; Rhea S. Hickey, Electrical and Electronics; William F. McDougal, Special Services; Walter H. Norman, Alpha Five Processing; John B. Kimsey, Dimensional Inspection; Parker Pelfrey, Research Services; Clarence L. Stevens, Chemical Services; Delmer D. Woods, General Weld Shop; and Robert B. Wyrick, General Can Fabrication Shop.

All except Bell and Kimsey are early retirees. They share a total of 204 years' company service with Union Carbide Corporation!

Five New Foremen

(Continued from Page 3)

sons. They live at 100 Salem Road, Oak Ridge.

Joseph D. Vannoy

J. D. Vannoy was born in Lone Mountain, Tenn., and came to work here April 25, 1953.

He was manager of the Clairborne Producers, Inc. (a farm co-op store) before coming to Y-12.

He lives with his family at Route 6, Plum Creek Drive, Concord. Mrs. Vannoy is the former Betty Buchanan. They have two daughters.



Elizabeth S. Harris
Secretary of the Year

'Liz' Harris Named Secretary-of-the-Year By Oak Ridge Secretaries Association

Elizabeth S. Harris, secretary to Paul H. Trebilcox, Y-12, was named "Member of the Year" by members of the Oak Ridge Chapter of the National Secretaries Association at its April meeting.

In making the announcement, Nelline Ross, member of the year last year, paid tribute to Elizabeth's outstanding qualifications, both as a secretary and as a member of the NSA as she presented her the Margaret Stewart Award. Citing her professional competence and attitude, members of the NSA paid special notice of her loyalty and service to the stated purposes and goals of the secretarial group.

"Liz," as she is known by her friends, has served many committee posts of the Oak Ridge Chapter, currently holding the office of corresponding secretary.

"Awarding the honor of NSA Member of the Year to Elizabeth certainly reflects both her dedication to the goals and ideals of NSA and her active participation in the various functions of the organization," said Trebilcox, upon learning of the honor to Liz. "This same dedication is equally apparent in her on-the-job activities. Not only is she highly proficient in the various secretarial skills, but also continually demonstrates her willingness to give her job that extra effort which can add so much to the function of any office. Added to these qualities, her intense loyalty and fine personality all combine to qualify her as an excellent choice."



Ride wanted from Garden Apartment area, 711 West Vanderbilt, Oak Ridge, to Central Portal, straight day. Brenda Suttles, plant phone 3-7213, home phone Oak Ridge 483-9876.

One car pool member wanted from Norwood section, Knoxville, to North or Central Portal, straight day. E. C. Keith, plant phone 3-5698, home phone Knoxville 689-2229.

Liz, a native of Mantachie, Miss., came to Oak Ridge in 1943 to work in the Housing Department of Clinton Engineering Works. She married Clarence "Fuz" Harris in 1944. They reside on Sonja Drive, Concord. There are two sons and a daughter, all married and away from home.

In addition to her chapter activities, Liz is secretary to the Women of the Concord Presbyterian Church, is a past editor of that church's monthly paper, and is this year's chairman of Spiritual Growth and vice president of the women's club. When she finds time for hobbies, she enjoys gardening, cooking and sewing.

The Member of the Year cup was presented by the late Margaret Stewart, holder of that title in 1954, to be passed along to succeeding members receiving this honor. Thus the name, the Margaret Stewart cup.

Dance Tickets Are Available in Y-12

Friday, May 8, is the big night for Y-12ers as their Spring Dance will usher in the warm season.

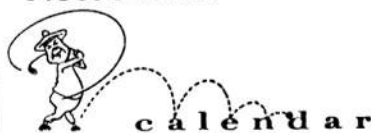
The event will take place at the American Legion Club, near Jefferson, with dancing set to begin at 9 p.m. Alan Atkins' orchestra will play music for the dance.

Tickets are selling for \$2 per person . . . or \$4 per couple.

They may be obtained from the following persons:

Building	
Betty Whitehorn	9202
Ernestine Elam	9203
Jo Ann Isham	9212
Judy King	9212
Gloria Oakes	9215
Irene Carmack	9215
Mary A. Wright	9711-1
Shirley Humphrey	9720-8
Doris Simpson	9720-6
Lib Kilby	9706-2
Barbara Jo Bratton	9737
Frances Stombaugh	9739
Deborah Kiviniemi	9995
Virginia Newby	9998
Barbara Littleton	9204-4
Judy Winslett	9103
Beverly Grubb	9201-5
Wanda Podeweltz	9201-1
Elizabeth Harris	9204-2
June Ellis	9704-2

Recreation



Saturday, April 25

GOLF TOURNAMENT: Gatlinburg Country Club. Tee off beginning at 7 a.m.

Tuesday, April 28

May 5
BOWLING: Starlite League, 8:30 p.m. Starlite Lanes, Knoxville.

PHYSICAL FITNESS: (For Men) 7-9 p.m. Oak Ridge High School Gymnasium.

Friday, May 8

Y-12 SPRING DANCE. American Legion Club. 9 p.m.-1 a.m.

Coming Soon

GOLF LEAGUE, SOFTBALL, HORSESHOE LEAGUES, TENNIS.

Smokeless Days for Cancer Research

By T. A. LINCOLN, M.D.

Lung cancer in 1970 will kill approximately 51,000 men and 11,000 women in the United States. Three out of four deaths from lung cancer are due to cigarette smoking. Now that the American Cancer Society is making its annual drive for funds to support cancer research, this would be a good time to quit, or at least, pause, in your smoking and devote the money saved to this worthwhile cause.

If a man who smokes two packages of cigarettes a day quit smoking for only a week and gives this money to the American Cancer Society, he will have made a significant contribution with no financial loss. If a two-pack-a-day man quits smoking for 30 days, he will have saved about \$24, which would make a handsome contribution to the fight against cancer.

'It's My Business'

Several communities have had "smokeless days" and have tried to get everyone who smoked to contribute the amount of money they ordinarily would have spent on tobacco on that one day to the Cancer Society. The lucky people who did not smoke



Dr. Lincoln

often contributed as much or more because they still felt a need to support their other cancer research activities.

A few smokers may react to this suggestion by retorting: "Get off my back. If I want to accept the risks and continue smoking, that's my business!" OK, but since you are costing the American Cancer Society a lot of money in trying to save you, how about a little help with those who want to quit? How about preventing your own children or the children in your community from starting smoking? The example you set by your own quitting would be most effective, but helping the advertising campaign of the ACS would be a worthy "second-best" effort.

Government Subsidies

The 1970 Cancer Facts and Figures, published by the American Cancer Society, indicates that the tobacco industry spends about \$300 million annually for advertising and promotion. To warn of the risks of cigarette smoking, the U. S. Public Health Service Clearing House on Smoking and Health last year spent \$350,000, and the American Cancer Society about \$700,000. A drop in the bucket, yet the Department of Agriculture reports that 4.6 billion fewer cigarettes were consumed in 1968 than in 1967, a drop of 2 percent. All cigarette advertising will be withdrawn from television and radio by January. Then the anti-smoking messages should have an even greater impact.

According to the New York Times, the Department of Agriculture spends "\$1.8 million a year to support the price of tobacco, \$28 million to subsidize its export, \$240,000 to advertise and promote the sale of cigarettes abroad, and \$30 million a year worth of tobacco is sent overseas to developing countries through the Food for Peace Program."

Farmers in this area who derive much of their cash income from the sale of tobacco may worry about this support. Even with fantastic success, the anti-smoking campaign won't begin to make major inroads into tobacco production for a number of years. Helping farmers with temporary subsidies not to raise tobacco would at least make health sense. It would make more sense than the established practice of paying farmers not to raise other crops.

It also seems a little strange that many companies spend huge sums of money in their health and safety programs, and yet tacitly encourage smoking by allowing cigarette vending machines to be conveniently located near work areas. The health hazard from smoking cigarettes is hundreds of times worse than those controlled exposures to pulmonary irritants in good companies.

Contributions to Education

Smokers voluntarily assume their risks while in a working environment this risk is involuntary. When pulmonary injury occurs, no deduction is made for the contribution of smoking. The total blame is usually on the work exposure. Somehow, this reasoning doesn't seem quite fair, but that's the way the Workmen's Compensation game is played nowadays.

Smokers who give up the habit for a short time and



RECEIVE POST OFFICE AWARD—Union Carbide Corporation's Nuclear Division has received the Public Service Award from the U. S. Post Office Department. The award was presented "in recognition of outstanding efforts in the interest of improved public service." The award was presented to Roger F. Hibbs, Nuclear Division President, who is pictured with personnel from the various facilities who made the award possible. From left are: O. C. Hartman, Oak Ridge Y-12 Plant; R. R. Tippy, Oak Ridge Gaseous Diffusion Plant; Mr. Hibbs; J. D. Lankford, Oak Ridge National Laboratory; and C. H. Martin, Oak Ridge Gaseous Diffusion Plant.

Used Autos, Office Equipment for Sale

A surplus sale of used government-owned vehicles and office equipment is now in progress. Featured are Chevrolet, Dodge, Ford, and Falcon autos as well as International trucks, a White tractor; Falcon and Chevrolet vans, Dodge Carryalls, Plymouth, Chevrolet and Ford station wagons. Office equipment includes typewriters, calculators, adding machines and copiers.

These items may be seen from 8 a.m. to 4 p.m., Mondays through Fridays up to the time the bids are closed on each lot. They are located at Oak Ridge Gaseous Diffusion Plant power house area, Building K-722, off State Route 58, Oak Ridge.

The sale starts at 9 a.m., Wednesday, May 6.

Additional information may be obtained from extension 3-4601.

invest their money in the American Cancer Society will be investing in the universities of their state. The University of Tennessee received \$148,854 in research grants during the fiscal year ending August 31, 1969. Vanderbilt received \$153,395, and the University of Kentucky \$17,408. The Oak Ridge National Laboratory has received support for several postdoctoral Fellows from American Cancer Society funds.

Although the above arguments may not strike a responsive note, the last one probably will. A universal cessation of cigarette smoking would probably do more to alleviate the doctor shortage than any other single action. The U. S. Public Health Service did a study which showed that members of the nation's labor force who smoked cigarettes spent over a third again as much time away from their jobs because of illness as persons who never smoked cigarettes. Women who smoke cigarettes, including both housewives and those who work outside the home, spend 17 percent more days ill in bed than women who have never smoked.

If you are dying for a smoke—you may be right!

NON-FRAGILE FISHBOWL

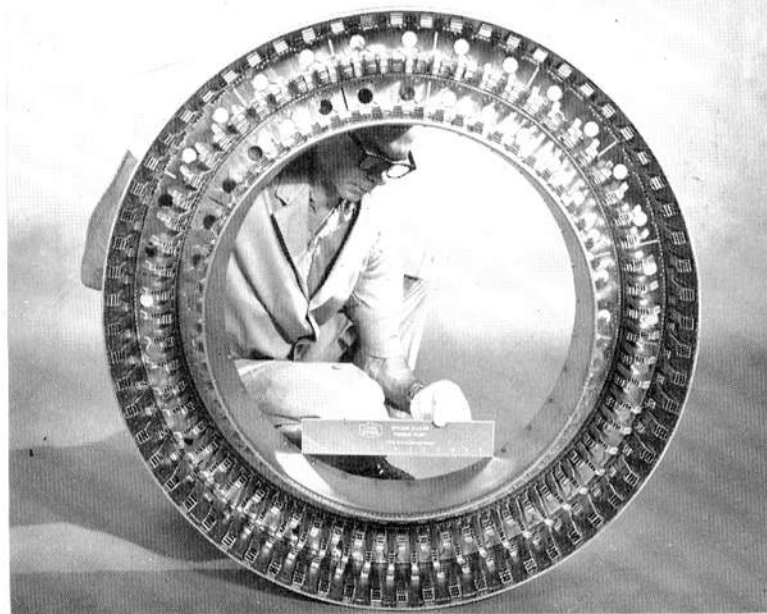
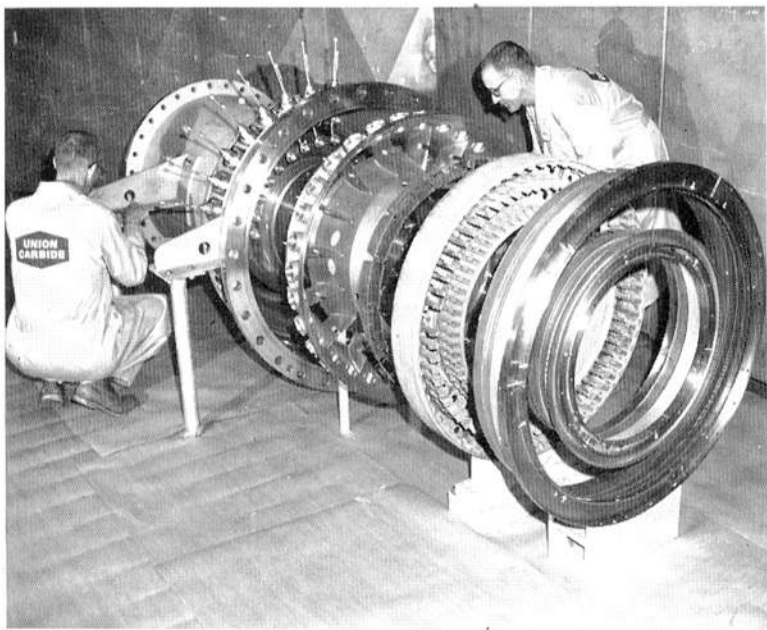
Ever wonder how huge oceanariums and aquariums hold back huge amounts of water behind glass that permits you to view the marine specimens? It's an extra-thick glass which is laminated with plastic inter-layers. This fully protects spectators against possible failure of portholes and viewing windows.

Golf Leagues Forming

Four Golf Leagues are in the process of forming for Y-12ers. They are at South Hills, Oak Ridge; Melton Hill, Clinton; Southwest Point, Kingston; and Whittle Springs, Knoxville. If you and a partner want in, please call 3-7109. Deadline for entering is April 28. Schedules will be set after that.



JOB WELL DONE—Doing the lion's share of the work in early stages of "Operation Clean Water" were the Boy Scouts in Troop 228. This picture was taken after the first weekend of work in the project. See story on page 1.



JET ENGINE PARTS FOR NASA—The Paducah Gaseous Diffusion Plant has fabricated a series of jet engine combustors for the National Aeronautics and Space Administration's Lewis Research Center, Cleveland, Ohio. In the top photograph L. S. Franklin, left, and C. H. Shuemaker make the final inspection of the combustor test unit before final assembly. In the lower photo Paducah's A. G. Terry inspects air scoops of the jet engine combustor assembly. The combustors use various type of especially designed air scoops to minimize pressure losses and to establish the most efficient combustion conditions. After testing at LRC, the features which offer improved performance will be incorporated into air-breathing engines built for jet planes of the future.

1500 Want To Help Organize Pioneers

Some 1,500 persons have expressed interest in joining and helping organize the Carbide Pioneers Club.

Three months ago, a special steering committee representing each of the three Nuclear Division Plants sent out news announcements explaining the idea behind the club. Forms were printed in the plant papers for employees to return, so the club organizers could evaluate interest among potential members.

Thousands Eligible

The steering committee includes:

Oak Ridge Gaseous Diffusion Plant — Virginia Donahoe, J. P. Jones and D. S. Pesce.

Oak Ridge National Laboratory — Russ Baldock, Rob Carter and Wells Stanley.

Oak Ridge Y-12 Plant — Tom Burkett, C. W. Frazier and Don Hill.

Club organizers estimate that several thousand persons are eligible for the club. Membership is open to employees with 25 years of Company service; those who are 55 or older; retired employees; and employees who have left the Company because of total and permanent disability. Associate memberships are also available to surviving spouses of deceased Carbide employees.

Early Response Good

Among the goals of the organizers of the Pioneer Club are: to pioneer better approaches to retirement planning and living; to provide opportunities for sharing common interests; and to establish new friendships and revive old ones.

"Very happy" about the early response, the steering committee is planning the first meeting for the group later this year. Information about the meeting will be released in the plant and area newspapers.

Secretaries Week

During this week (April 19-25) local secretaries as well as secretaries throughout the country are observing "Secretaries Week." Originated in 1952 as the National Secretaries Association, International, in cooperation with the U. S. Department of Commerce, Secretaries Week is meant to bring recognition to all secretaries for the vital role played in business, industry, education, government, and all the professions by this group. It also reminds secretaries of their responsibilities to their employers and to their profession.

This year's theme is "Better Secretaries Mean Better Business." The Oak Ridge Chapter of NSA is promoting study courses in all phases of the business education field, with more emphasis placed on the promotion of the Certified Professional Secretary program.

A special supplement of "The Oak Ridger" is saluting all secretaries in this vicinity. Presented throughout are some of the highlights and achievements of the local chapter since its organization in 1952. There is also a look to the future—Secretaries in the 70's.



UNION CARBIDE CORPORATION

NUCLEAR DIVISION

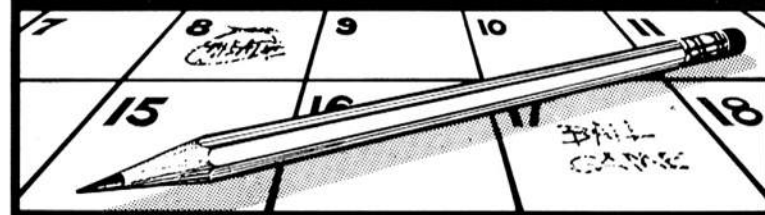
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Permit No. 71

CALENDAR OF EVENTS



TECHNICAL

April 24

Robert W. Chambers, New York University Medical Center, will speak on "Recognition of tRNA by tRNA Synthetase," Biology Division Seminar, Large Conference Room, Building 9207, 12:15 p.m.

UT-AEC Agricultural Research Laboratory Seminar, "The Action of Thyroid Hormones in the Response of Animals to Cold," by Dr. Samuel R. Tipton of The University of Tennessee, UT-AEC Conference Room, 3 p.m.

Physics Division Seminar: "Fast Neutron Capture by Separated Isotopes at ORELA," R. L. Macklin, ORNL Physics Division. — Building 4500N, East Auditorium, 3:15 P.M.

April 27

Biology Division Seminar, "Application of the Electron Microprobe to Biological Specimens," by Helen Mateer, of ORNL, First Floor Tower Annex Conference Room, Building 9207, 12:15 p.m.

April 27-May 1

International Gas Cooled Reactor and Molten Salt Reactor Information Meeting. The gas-cooled breeder-reactor portion of the program will be held at the Oak Ridge Playhouse April 27-30. The molten salt reactors will be featured in the program at the Playhouse on April 30 with the last meeting, on May 1, being held at ORNL's Central Auditorium in Building 4500N.

April 30

Melvin Center, of Harvard Medical School, will speak on "A T7 Endonuclease Essential for Phage DNA Synthesis," Biology Division Seminar, Large Conference Room, Building 9207, 3:30 p.m.

May 1

UT-AEC Agricultural Research Laboratory Seminar. Invited speaker, Michael Bender of ORNL, who will talk on "Computer Analysis of Human Chromosomes." UT-AEC Conference Room, 3 p.m.

May 3-7

Symposium on Sol-Gel Processes and Reactor Fuel Cycles. Riverside Motor Lodge, Gatlinburg. Sponsored by ORNL.

COMMUNITY

April 24-25
May 1-2

The Oak Ridge Community Playhouse presents "The Dybbuk," a very different love story, 8:20 p.m., Oak Ridge Playhouse. (Box Office opens April 22.) Admission: \$2.

April 25

Oak Ridge Civic Music Association presents The Oak Ridge Symphony Orchestra and the Oak Ridge Chorus. Oak Ridge High School Auditorium, 8:15 p.m. Admission: Adults \$2.50; Students \$1.25.

May 3-24

Prints from Barkley, Ltd. Oak Ridge Community Art Center. Admission: \$.50 to nonmembers.

'Dybbuk' Last Playhouse Production This Season

"The Dybbuk," a classic of the Yiddish theatre, will open Friday, April 24, at 8:20 p.m. at the Oak Ridge Playhouse.

Murray Hanig will appear as the caretaker of the synagogue in this tale of the mystic and the supernatural. Written by S. Anski in 1914 and motivated by his interest in Jewish folklore, "The Dybbuk," is a most unusual love story. A dybbuk is the soul of a dead person that enters a living person on whom the dead one had some claim. Romantic, spooky, and fascinating, the play has been performed in all parts of the world thousands of times.

It will be performed also on April 25, May 1, 2, 8 and 9. Tickets are on sale at the box office.

Playhouse membership for next year has opened with the announcement of next year's plays: "Around the World in 80 Days," "The Night Thoreau Spent in Jail," "Black Comedy," "Spofford," and "A View from the Bridge."

Spring Backpack in Store For Smoky Mtn. Hikers

Smoky Mountain hikers are planning their first backpack of the Spring into the Forney Creek-Jonas Creek-Welch Ridge area. They will camp Saturday night, April 25, somewhere on Jonas Creek. On Sunday they will visit Silers Bald and take to the Appalachian Trail back to the original parking area.

An alternate hike is planned for Sunday in duration of about four miles in the Huskey Gap area.

FAMOUS ATOMIC SCIENTISTS

NEUTRON
235 U
FIRST SPLITTING OF URANIUM BY HAHN'S TEAM LED TO THE CHAIN REACTION AND DEVELOPMENT OF THE ATOMIC BOMB

DR. OTTO HAHN
1879-1968

DEFIED DICTATOR HITLER BY HELPING PREVENT THE DEVELOPMENT OF THE BOMB IN HIS NATIVE GERMANY

AWARDED 1944 NOBEL PRIZE IN 1945 WHILE INTERNED

BY ALLIES IN ENGLAND — ALLOWED TO GO TO SWEDEN IN 1946 TO COLLECT PRIZE

HAHN AND ASSOCIATES RECEIVED AEC'S FERMI AWARD IN 1966 —

"FOR ESPECIALLY MERITORIOUS CONTRIBUTIONS TO ATOMIC ENERGY"

A PH.D. AT AGE 22, DISCOVERED HIS FIRST RADIOISOTOPE, RADIOTHORIUM AT 26

GERMAN PHYSICAL CHEMIST, WHO WITH PHYSICIST LISE MEITNER AND CHEMIST FRITZ STRASSMANN, DISCOVERED NUCLEAR FISSION JUST FOUR YEARS BEFORE THE FIRST SUSTAINED AND CONTROLLED NUCLEAR CHAIN REACTION WAS ACHIEVED AT THE UNIVERSITY OF CHICAGO IN 1942.

J. L. Liverman to Speak at Health Physics Meeting

Dr. James L. Liverman, associate director for Biomedical Science at Oak Ridge National Laboratory, will speak to the East Tennessee Chapter of the Health Physics Society tonight, April 23.

The meeting is set for 7:30 p.m. at the Oak Ridge Elks Lodge, preceded by a social hour at 5:30 and dinner at 6:30 p.m.

Dr. Liverman's subject will be "A New Environmental Emphasis."